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ABSTRACT

Emphasizing the importance of information in effective planning and decision making, this document reviews the background on data in education both before and after 1976, with particular emphasis on the Florida Educational Accountability Act and its influence on: (1) comprehensive planning; (2) student assessment; (3) management information systems; (4) annual reports; and (5) state-developed standards. After brief mention of the Federal Wall Chart that charts state-to-state comparisons, the problems and prospects administrators have regarding data are described. Current and future demographics are reviewed in terms of race, ethnicity, age, family structure, and economic class, and four related generalizations are given. Last, this document reviews the use of data in effective schools, educational improvement, and site-based decision making and discusses curriculum improvement, at-risk students, school and district profiles, communicating with data managers, and Management Information Systems (MIS). Names and contacts for the Florida Educational Research Council Board of Directors, advisers, and council members are appended. (8 references) (CLA)

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FLORIDA EDUCATIONAL RESEARCH COUNCIL, INC.

RESEARCH BULLETIN

USING DATA IN EDUCATIONAL PLANNING AND DECISION MAKING

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F.E.R.C. Notes on this Bulletin

Never has Educational Planning and decision making been more critical than the present. The margin for error is so limited it is almost non-existent. Technology exists which enables the accumulation, storage and retrieval of huge amounts of data. Authors, Bill Davies, Mary Topping and Brenda Koon of the Polk County School District have written a very practical bulletin on the subject. F.E.R.C. is pleased to publish this information as a continuing commitment to serve Public School education in the State of Florida.

Charlie T. Council
Executive Director

USING DATA IN EDUCATIONAL PLANNING AND DECISION-MAKING

I. INTRODUCTION

One of the attributes we look to in school administrators is decisiveness. We look up to an administrator when we see that he or she is decisive. One of the Florida principal competencies is decisiveness. But it's one thing to be decisive using the correct information to make the decision and quite another to decide with little information or the wrong information. In the second case, the administrator is moving his or her school or department into the future with some poor or wrong information. It is like the old story of the blind man who came upon an elephant. He felt the trunk and thought it was a snake; he felt the ears and thought them to be cauliflower; felt the legs and thought them to be the trunks of trees, etc. Each time he was deciding, but with limited information. Like the blind man, school administrators sometimes receive limited information and make a wrong or poor quality decision.

This monograph is about information, decision-making, and planning. It will review the brief background on data in education, how administrators interact with data, and then a review of the data itself - current and future student demographics, data about our schools, and a review of some innovative data applications. We will conclude with a brief look at tomorrow - about the year 2000, and the role data will play in educational leadership. Incidentally, please note that we are using the words information and data interchangeably - they both mean the same thing - facts, concepts, and generalizations. We put these facts, concepts, and generalizations to work when they are used to make a decision or plan.

II. BACKGROUND ON DATA IN EDUCATION

The history of data in education is relatively brief. For purposes of presentation, it can be divided into two periods - before 1976 and after 1976. That was the year of the Florida Accountability Act which gave birth to comprehensive planning and the statewide assessment program in Florida.

A. BEFORE 1976

During the 1960's education was influenced by the Elementary and Secondary Education Act (ESEA), specifically, Title I of that Act which provided funds for compensatory education for educationally disadvantaged youth from low-income schools. Data on income levels of

schools was collected and within those schools low performing students were identified. Using data from free and reduced lunch counts and from norm-referenced tests, schools and then students were ranked for Title I services. Consequently, much of the data analysis in school districts during this period was concentrated in the Federal Programs office.

Enrollment counts and needs assessments were also conducted during the 1960's and early 1970's. Enrollment counts were manually collected, aggregated, and used for funding purposes but rarely used for any other type of decision making. Additionally, needs assessments, consisting of questionnaires, opinionnaires, etc., were infrequently administered for special purposes. However, these were infrequent enough not to be considered as a pattern of administrative behavior during this time.

It may be fair to say that school administrators made decisions and planned based on their own experiences and intuition. Information was not routinely gathered and analyzed.

B. AFTER 1976

1976 was a watershed year for education in the State of Florida. In that year the Legislature passed the 1976 Accountability Act. This Act was a regular treasure of data requirements. It contained components dealing with comprehensive planning, students assessment, and annual reporting. Each of these components made numerous references to data to be collected, summarized, analyzed, and reported for decision-making purposes in Florida public schools. The following is a brief review of each:

1. Comprehensive Planning

Requires school boards to maintain a continuing system of planning and budgeting which shall be to aid in identifying and meeting the education needs of the students and the public. It further specifies that the process shall emphasize a system of school-based management in which individual school centers become the principal planning units.

2. Student Assessment Testing Programs

Provides for student standards in most subject areas, and a statewide testing program to monitor student progress, especially minimum skills in reading, writing, and mathematics. In accordance with a new testing law, Florida plans to phase-in a writing production test at grades 4, 7, and 10, and the use of NRTs at grades 4, 7, and 10 for reporting student progress.

3. **Management Information Systems**

Establishes a statewide information network including the automation of common data elements and the reporting of the same by school districts. More will be reviewed on this later.

4. **Annual Reports**

Requires each school distict to prepare and distribute an annual report of progress. It seems that each year the list of information and analyses that are to be reported gets longer. It currently includes how well the school is meeting its goals, analysis of student progress, rankings of norm-referenced test results, student attendance, dropouts, discipline, student, teacher, and parent attitudes about the school, and school needs, etc. The principal is responsible for preparing this report with assistance from teachers and the school advisory committee.

5. **State-Developed Standards**

The state has also been instrumental in fostering a common language about standards and data. This has come about through such programs as the Annual Report of Educational Excellence, the Quality Instruction Incentives Program, and the High School Accountability Program. The following is a brief review of each:

a. **Annual Report of Educational Experience**

This report requires school districts to report on three areas; output, input, and process indicators. Output indicators include such elements as SAT/ACT/PSAT results, SSAT results, norm-referenced test results and comparisons, the percentage of those occupational program completers who were placed, etc. Input indicators include teachers with advanced degrees, minority teachers, average student cost, average salary of instructional personnel, etc. Process indicators include such elements as percent of high school students in advanced math, science, foreign language, advanced placement, and fine arts courses.

b. **Quality Instruction Incentives Program**

This program is optional to the district and is to be part of the collective bargaining agreement with the teacher association. It provides for a merit school program selected from schools

exceeding their expectancy level on a standardized test as well as other measures of achievement, tests results, participation, and discipline. It also may be used to pay meritorious teachers based on attendance, employment in a critical shortage or high priority location school, or superior evaluation.

c. High School Accountability Program Grants

This program is designed to reward high schools that show productivity in improved graduation, dropout, and promotion rates; increased enrollment in upper level courses; and improved use of the postsecondary feedback report.

C. MANAGEMENT INFORMATION SYSTEM

It is evident from just these programs and presentations that there is a proliferation of information about schools used by the state and federal governments. However, the most important legislation influencing the collection, processing and reporting of information about schools is the management information section of the Accountability Act.

This legislation has created an automated student and staff data base which is comprehensive. The student data base contains approximately 225 data elements including student demographic, course, schedule, discipline, attendance, scholarship, special programs, etc. The staff data base includes approximately 190 data elements ranging from demographics, employment, and payroll information. This is one half of the system. The second half is concerned with the automation and electronic transfer of these data over the Florida Information Resources Network (FIRN). This requirement has given to every administrator in the state the capability to receive a myriad of reports either from a micro-, mini- or mainframe computer.

D. FEDERAL WALL CHART

In addition to the State of Florida, the Federal government has specified information for making state-to-state comparisons. This information has gained much notoriety especially in Florida with respect to the dropout rate where Florida ranks 51st out of 51 states in 1989 (USDE, 1990). The data elements presented in the Federal wall chart include the percent of high school students taking the test and those scoring at certain ranges for the ACT/SAT; AP candidates as a percent of graduates; graduation rate; pupil/staff ratio; current per pupil expenditures and expenditures as

a percent income per capita; percent poverty; percent minority; percent handicapped; etc.

III. DATA AND ADMINISTRATORS

A. PROBLEMS WITH DATA

Administrators use data in decision-making and planning to various degrees. This may range from having too much data and reaching a point of "analysis paralysis" inhibiting decision-making to making the decision, or making a poor quality decision, with partial or incomplete data. To many administrators, data simply seems to be a burden. First, when they consider the myriad of reports that seemed to have no meaning, information is just a burden they have to supply to someone else. Second, many people are still intimidated by the computer; by how to get data from the computer, and by how to recognize them when they are on a printout.

The source of both these concerns is being addressed. As the individual student and staff records are automated, the need for reports to be completed by administrators is reduced. In Polk County, we have eliminated virtually every state report due to the automated data base. Second, as computers and the reports they generate become "friendlier," their use will increase. (Please note the section on communicating with data managers and combining data to get needed ad hoc reports for the prescription on how to work with the computer to get data for decision-making.)

B. PROSPECTS WITH DATA

In 1982, the book *Megatrends*, by John Naisbitt and Patricia Aburdene, described the trends that were shaping the 1980's. The first trend they described was that we were moving from an Industrial to an Information Society. One of the points they make is that we "are drowning in information and are starved for knowledge." Education is no exception to this societal trend. With the onset of automation, educators are drowning in information. However, there still seems to be sufficient gaps in using the appropriate information for decision-making that we, too, are starved for knowledge in educational administration.

But "the times, they are a-changing." There is a renewed emphasis on school-based management and within that framework, site-based planning and decision-making. Basically, schools are being asked to assume more autonomy and control of their own destiny. Simultaneouly, the prinicipal's

leadership is described as being a key variable in school effectiveness. Therefore, it is logical that quality decision-making with judgments based on data review is a competency needed by school leaders.

Indeed, one of the nineteen competencies used in Florida to select and appraise principals is named Information Search. It is described as follows: "Searches for and gathers many different kinds of information before arriving at an understanding of an event or a problem. Uses formal and informal observation, search, and interaction to gather information about the environment. The breadth (number of sources) and depth (what is learned from each relevant source) of information from different sources. The behavioral indicators for this competency are as follows:

1. Actively gathers information about the school, its needs and problems, using a variety of sources.

2. Withhold making decisions, including the commitment of resources, until sufficient information has been collected and analyzed.

3. Keeps up-to-data and informed about all aspects of the school.

4. Collects information rapidly and accurately through oral questioning.

5. Accesses computer and/or management information systems (MIS) data about the school.

Since this competency is highlighted, it is safe to assume that principals are using it, and the one following, Concept Formation, which is the ability to form concepts, hypothesis, or ideas on the basis of information. The next section describes some of the more common types of data that principals are reviewing and analyzing.

IV. CURRENT AND FUTURE DEMOGRAPHICS

The most important information that is available to educators is demographics. It is the most important because it is very useful in telling us about not only the needs of education but of all society's institutions now and in the future. The following is a brief review of the race, ethnicity and age, family circumstances, and economic class of the state and nation.

A. RACE, ETHNICITY, AND AGE

Currently Florida's population is 77% white, 14% black, and 9% Hispanic

(Hodgkinson, April 1988). Trends indicate that the percentage of white will decline, the percentage of black will remain stable and the percentage of Hispanic will increase as we approach the year 2000. This is being caused by two factors - birth rates among the races and immigration. Birth rates are a function of economic class, not race, i.e. the education and income level of the parents. The lower the economic class, the higher the birth rate. It happens that Hispanic and blacks are concentrated in the low economic classes, therefore, have higher birth rates. For example, in order for a racial or ethnic group to replace itself, it must have a birth rate of at lease 2.1 - 2 to replace mom and dad and .1 to take care of infant mortality (Hodgkinson, 1988). Currently, whites have a birth rate of 1.7, not enough to replace themselves. At the same time the birth rates for blacks is 2.4, for Hispanic (primarily Mexican-Americans) is 2.9. By the year 2000, it is projected that whites will decline to 73%, blacks will remain fairly stable at 14% and Hispanic will increase to 13%. California and Texas already have minority majorities. Miami has a minority majority.

Immigration is the second factor causing racial and ethnic diversity in the nation and the state. During the 1920's we immigrated 14 million people from Western Europe. During the 1980's, we have also immigrated 14 million people but this time from South America, Mexico, and Asia. It is interesting to note that two-thirds of the world's immigrants today are coming to the United States. Most of the immigrants are coming to the sun states - California, Texas, and Florida.

Not only is our country becoming more racially and ethnically diverse, it is getting older as well. By the year 2000, most of the baby boomers (the large group of people born between the years 1945 and 1965) will be retired, its retirement income produced by much smaller groups that follow. For example, in 1950, 17 workers paid the benefits of each retiree. By 1992, only three workers will provide funds for each retiree and one of every three will be minority. In 1983, we crossed a threshold for the first time in this country. There were more people over the age 65 than there were teenagers and that is likely to be the case for a long time. Currently, 12% of our population is over the age of 65. By the year 2010, 2020, and 2030 it will rise to 14%, 17%, and 21% respectively.

B. FAMILY STRUCTURE

The family unit is unstable and this instability is worsening in this country. The census tell us that 59% of the children born in 1983 will live with only one parent before reaching age 18. This now becomes the normal childhood experience. Today 40% of the children born will experience

divorce in their family, 12% will be born out of wedlock, 5% will have parents who will separate, 2% will have at least one parent die, and only 41% will reach 18 "normally" (Hodgkinson, 1985).

Another important factor important to cite with respect to families is that 70% of the working age women is in the workforce today (Johnston, 1987). For example in 1955, 60% of the households in this country consisted of a working father, a housewife mother, and two or more children - matching the image of the typical American home of Ozzie and Harriet. In 1980, it dropped to 11% and 1987, it dropped to 7% - an astonishing change. Today the number of latchkey children (i.e., those who are home alone after school when adults are not present) number at least four million in this country and the number is growing every year.

C. ECONOMIC CLASS

Generally, not only are children more racially and ethnically diverse, and come from single parent homes, but tend to be poorer as well. A child under six is six times more likely to be poor than a person over age 65. Our middle class, the group who earn between $10,000 and $50,000, is declining. For the previous fifty years it represented 80% of our population. Now it represents 60% (with the 20% each going to the rich class and the poor class) and is in a mode of further decline. Today children make up 40% of the nation's poor.

Florida's children follow this economic trend. In a recent report of the Legislature, the Florida Center for Children and Youth, stated the following: a. 25% of Florida's 2.9 million children live in poverty and most of them are below the age of 5; b. 13% of Florida's 1.7 million school children live in poverty; c. 90% of all prison inmates are high school dropouts; about 75% of Florida's school dropouts live in poverty.

D. GENERALIZATIONS ABOUT DEMOGRAPHICS

There are several generalizations which become evident and have direct implications for education. These include:

1. There is a very large, mostly white middle class that is retiring who will need Social Security, Medicare and Medicaid.

2. There is a school-age population that is becoming more racially and ethnically diverse, and poorer.

3. There will be a greater and greater need for the custodial care mission in our public schools, before- and after-school child care, and breakfast programs.

4. Self-interest motivates everything. It is in all of our self-interest that all students - not 65%, not 80%, but 100% are literate and can enumerate. No longer can the schools be viewed as selecting and rejecting devices. Equity, as well as quality must be the hallmarks of good schooling.

V. DATA ABOUT SCHOOLS

A. EFFECTIVE SCHOOLS, SCHOOL IMPROVEMENT, SCHOOL-SITE DECISION MAKING

1. Background

a. Effective Schools Reform

Equity and quality were the subject of a report to Congress by James Coleman in 1966. There was widespread acceptance of Coleman's report on his studies and the major conclusion that learning or the absence of it had little to do with schools. Coleman said that the family background had more to do with what a child learns than did schooling. Edmonds (1979) countered that by saying that it depends on the school's reaction to family background, that we can, whenever we choose, teach children whose education is of interest to us. He based his conclusion on the fact that he had found schools where all students, regardless of their family background (SES or race/ethnic group), were learning. He further stated that this learning could be demonstrated on nationally normed, standardized achievement tests.

Although many educators before Edmonds believed that schooling can help all children to learn, he was the leader in discovering and defining effective schools. Based upon the work of Edmonds and his associates Brookover and Lezotte, an effective school is one in which a relatively high percentage of students achieve the intended curriculum, however defined by a school district, and there is no difference in the achievement among the three important subgroups in a school, i.e., race/ethnicity, socioeconomics status, and gender.

b. School Improvement/School-Site Decision Making

In an effective school Edmonds and his associates found five characteristics; leadership, a purpose or mission, a safe and orderly environment, high expectations of students, and monitoring students' progress. These are the areas addressed in many school improvement/school-site decision-making efforts.

2. Data Driven

When a school is assessing itself to set an agenda for school improvement and school-based management, attention needs to be given to developing a profile of the school over several previous years. The development of the profile and action planning based on the information contained in the profile are usually functions of a school improvement team or, in some cases, the entire school staff. Certainly the entire staff must be committed and involved in improving a school. One of the profile models being used successfully in our schools has the following components:

a. Disaggregated Test Data - Part I

Test data are analyzed by race/ethnic socioeconomic status, and gender. These analyses are of scores on our norm-referenced tests (ITBS) and the SSAT.

b. Faculty Observations - Part II

Staff members' perceptions of the status of their school relative to the effective schools characteristics are gathered using survey forms, interviews, or other means. The information gained through these various data collections methods is then considered when the school improvement team or the entire staff, as applicable, complete the Part II of our model profile.

c. Other Information - Part III

Other information is gathered about the school and forms Part III of the profile. The information includes student and staff characteristics; attendance rates for student and staff; student free and reduced lunch rates; special programs, promotion, and discipline rates; as well as in and out migration rates. Other information can be gathered as needed to make informed decisions about the status of the school.

3. School as Locus of Control and Change

The locus of control and change in school improvement efforts must remain with the school. School staff members with the principal providing the leadership must evaluate their school, plan for needed changes, and implement an action plan. The district staff members must serve as supporters of school improvement efforts, providing their expertise in a timely and facilitative manner.

B. CURRICULUM IMPROVEMENT

Curriculum improvement requires systematic monitoring of the curriculum at the classroom, building, and district levels. Teachers monitor and assess their instructional programs routinely using both qualitative and quantitative methods, including classwork and homework assignments, observations, and teacher-made tests. Curriculum improvement, however, is contingent upon the broader context of the school, the district, and the state, and the standardized measures employed to generate information about the students' performance. The usefulness of these data with respect to curriculum improvement depends upon two major factors: (1) the congruence of the written, taught, and tested curriculum, and (2) the availability of both aggregated and disaggregated reports on norm-referenced and criterion-referenced measures.

1. Curriculum Congruence

Curriculum congruence is frequently depicted as a triangle with the point of each of three acute angles representing the written, taught, and tested curriculum, respectively. All three must be in place to achieve curriculum congruence and for curriculum improvement efforts to be successful.

2. Use of Test Score Reports

Whether a district scores internally, in cooperation with a consortium, or contracts with a commercial test publisher for scoring services, a variety of reports are available. Some of these reports are more usable for curriculum improvement efforts than others. Test reports typically fall into two groups: aggregated reports and disaggregated reports.

a. Aggregate Reports

The standard reports generated through most scoring programs and services include:

(1) Class/School/Grade Listing of Achievement - a list of scores for each student in group with summary data at the bottom.

(2) Class/School/Grade Summary report - a report that gives the percentage passing for the group or the mean, average, and/or median scores and/or percentile ranks.

If the test is a norm-referenced test (NRT), such as the ITBS, CTBS, SAT/8, CAP, or CAT, the scores are reported as mean or median normal curve equivalents (NCE), percentile ranks (PR), stanines, and grade equivalents (GE). If the test is a criterion-referenced test (CRT), such as Florida's High School Competency Test (formerly SSAT-II) or the high school subject areas tests, then scores are reported by the percentage of students mastering/passing a given skill, standard, or objective.

Aggregate reports have limited use in curriculum improvement. Their best use is for reporting overall achievement to the media and for checking the school's overall "health." It is difficult to determine how to translate a PR, a NCE, or a GE into strategies for improving the instructional program.

b. Disaggregated Reports

Disaggregated reports break down the test score data by skills, standards, and/or objectives or by subgroups, such as racial/ethnic, socioeconomics status, or gender. Scoring services tend to label these as specialized reports as opposed to standard reports. In our district these reports are primarily custom reports developed by our research director using SPSS-X or by our data processing staff with direction from the comprehensive planning/assessment director.

As noted above, disaggregated reports are primarily of two kinds:

(1) Skills Analyses

These analyses usually give the percentage of students in a class,

school, grade, district, state, or national norm group mastering/passing/achieving each skill, standard, cluster of objectives, or particular objective.

These reports are available for the objectives measured by NRT's. However, care must be taken not to misadjust the curriculum or include above-grade-level objectives in the curriculum since an NRT surveys a broad range of objectives, with some above grade level.

These reports are most useful for making adjustments in both the curriculum and the instructional delivery.

(2) Subgroup Reports

These reports address quality and equity, reporting for subgroups within the general population. Reports usually give the percentage by subgroup mastering each skill, standard, cluster of objectives, or particular objective.

These reports are especially useful for developing instructional strategies for reducing the gaps in performance among the subgroups.

(3) Foil Analyses

A foil analysis, typically provided for a given grade tested in a school, can directly impact curriculum and instruction. The analysis gives the percentage of students selecting each distractor and correct answer for every item on the test. Every item is classified by objective, standard, and/or skill. This report is especially useful when used with an error analyses (described below).

3. Resource Materials

Commercial publishers who develop and market NRTs and the offices of Assessment, Testing, and Evaluation and Performance Standards in the Florida Department of Education (DOE) make available a variety of resource materials for use in coordination with test reports. For an NRT, a technical manual and a book of skills and objectives are usually published and may be purchased by single copy or in bulk quantity. For the statewide assessment programs, the DOE provides limited copies of error analyses (for the HSCT) and listings of student and

course performance standards. Some commercial publishers provide similar kinds of analyses for their NRT's.

Error Analyses must be used with the foil analyses. By noting those test items on which a high percentage of students chose the wrong answer, a teacher or an administrator can review in an error analyses a sample test item and an explanation of each type of distractor for every skill. Such a review of test performance can lead schools to changing the way they instruct students in a particular skill or the skills, standards, or objectives included in the curriculum.

These resource materials are essential for using test reports to make adjustments in curriculum or instructional strategies.

C. AT-RISK STUDENTS

Many districts have set about identifying potential dropouts for schools. In Polk County, we generate a computer list of potential dropouts based on criteria that has been found in the research. These criteria include the following:

1. Ten or more absences during a semester
2. Tardy 10 or more days during a semester
3. One or more retentions (cited to be one of the most significant factors)
4. Less than the 25th percentile in total reading and math on the ITBS
5. Failed SSAT II
6. More than 2 transfers within a school year
7. Referred to alternative education
8. Failed 2 or more subjects per semester

Our schools use these lists to target the students for dropout prevention strategies. All schools do it but it is especially emphasized in the middle school. Several other districts, including Dade County which has a extensive dropout prevention program, do similar targeting.

One of the greatest areas of concern in education in Florida is the number of dropouts we have. The dropout rate has gained even greater notariety with the "wall chart" from Washington which reports dropout rate as graduation rate. In April, the wall chart listed Florida as having a graduation rate of 58.6%, lower than any other state. Commissioner Castor challenged that statistic stating that it is more like 71.6%. She accounts for the difference due to first-time ninth graders, excluding repeaters, and discounts the number of high school students who move into the state

during the four-year period. At any rate there have been at least three dropout rates in use:

1. The number reported by the principals each year on the Fall Student Survey, which has usually been a deflated figure;

2. The graduation rate (comparing the number of graduates with the ninth grade class four years earlier) which has usually be an inflated figure;

3. District attempts to count the dropouts from the withdrawal codes on the Florida Student Data Base. The State has established which codes to use through the 1989 Florida Driver's License Law. There are some 13 codes which now officially count school dropouts, including "no shows" and "whereabouts unknown."

Many districts have set about identifying potential dropouts for schools.

D. PROFILES

A book of profiles is a collection of information describing some of the more important characteristics of individual schools and a district. Profiles are designed to provide detailed information of interest about the schools to professionals and other staff and to the general public. Summary profiles for the district, categories of schools (elementary, junior/middle, high school, ESE, alternative and geographic adult, etc.), and areas are developed also in some districts. These contain most of the same characteristics as the school profiles.

The profile sheet for each school in the Polk County School System provides information on school environment and economic conditions, staff and student characteristics, and a summary of student achievement as measured by the Iowa Test of Basic Skills (ITBS) and the Statewide Student Assessment Test (SSAT), Part I or II, as applicable. The student achievement section also includes results of the Scholastic Aptitude Test (SAT), the American College Tests (ACT), and the results for advanced placement of students, where available.

A school is a complex organization, and efforts to characterize a school using quantitative data result in providing only part of the essence of a school. The factors selected for inclusion in a school profile are among those considered to be most indicative of total school environment and of greatest concern to the educational community. Some factors, such as Expenditure per FTE (unweighted), Florida Educational Finance Program

Revenue per FTE (unweighted), and Instructional Staff Attendance are for the entire fiscal year. Information for other variables such as student and staff characteristics, is gathered as of a particular point in time (generally the fall of the school year). Variance between the data as shown on the profile and the school's records may be due to changes that have occured since the fall of the school year.

The school and district profiles are intended to be snapshots of information. There will always be a difference between the currency of the information and the publication date or subsequent dates when the information is being reviewed by the reader. Information reported reflects the outcomes of the education process, e.g., costs, discipline, and achievement and must therefore by summarized from the previous school year.

The information may be used in planning, decision making, or presenting data about schools. The user is cautioned against making comparisons between and among schools. The range of interests, abilities, and socio-economic factors contributing to the uniqueness of each school may not be captured when grouped data are reported.

E. COMMUNICATING WITH DATA MANAGERS

How to translate qualitative concerns into quantitative questions? This is a major problem when decision makers are communicating with data processors. Often there needs to be an intermediate to translate the concerns into specific data requirements. Usually this intermediate is in an information services department and has had experience as a decision-maker and a data processor.

A sample of the information gathered for decision-makers by data processors needs to be validated as does information gathered using other means. If the message is clear and specific, the results are usually very reliable and useful in making decisions.

Discussed under Section V are examples of products that has been judged very useful by decision-makers. There are at least seven crucial questions a decision-maker should be able to answer when requesting information. These are:

1. Who will be the audience(s) of the report?

2. What are you trying to find out? (Purpose of the report)

3. What data elements do you want?

4. What format do you want? How should the page look?

5. How do you want the information sorted? Ranked? Compared? Listed?

6. When do you want it? When do you need it?

7. Where should the report be sent?

The interaction a decision-maker has with data managers can be facilitated by attending to the following guidelines and definitions:

1. Never ask, "How much trouble would it be?" If you really need this report, proceed.

2. If there were an additional crucial question, it would be, "Can this be done on a microcomputer?"

3. Lead Time - Months, not days. (Perhaps we could negotiate to weeks.) Data managers are there to serve you, but much of their time is already obligated by legislated mandates. Ask NOW.

4. Drop Dead Date - Absolute deadline, after which the report can't help you.

5. Data Elements - Variables available for your report. Look over your options. Would it help to know the child's sex? Homeroom teacher? Bus route?

6. Test Run - Trial run printout to see if you will have the information that you need. Rare is the case in which you won't want to make revisions once you see what you ordered, or what the data managers thought you ordered. Build that into your timeline.

Many of the reports needed to make decisions may be developed at the schools using microcomputers. Others may require assistance from management information services or data processing members at the district office.

F. MANAGEMENT INFORMATION SYSTEMS (MIS)

We are concluding this monograph with the statewide management information system. As was mentioned earlier, it is part of the Accountability Act and prescribes data elements to be collected in the areas of student, staff and finance throughout the state. It also contains the requirements for the electronic network through which these data will pass going from the school to the district office to the Department of Education in Tallahassee. It is a most appropriate topic with which to conclude because the MIS in the state represents the most potential of all the components we have cited to enhance the administrator's decision-making ability.

In Polk County, during the period that we were building our computer network and establishing the data base, our guide was, "Ask not what we can do for the DOE, but ask what we can do for the schools?" This has led to microcomputer networks in every school connected to the mainframe computer in the district office. Parallel software runs on both computers and we upload and download data daily. What this network allows us to do is to put all of the data elements right at the doorstep of the school administrator. This makes the some 225 student and the 190 staff data elements available for the myriad of ad hoc reports capable of being generated by the microcomputer. The mainframe also generates many reports including FTE, report cards, grade distribution lists, grade point averages lists, graduation status screens and letters, etc. The administrators not only may receive reports (lists, sorts, rankings, etc.) but also merge the data with word processing on the desks of the secretaries, principal, assistant princial, deans, and guidance counselors.

School districts all over the country are now planning for the next steps in the use of data--the classroom connection. In Polk County, our plans are to have a microcomputer on every teacher's desk by the year 2000. Our plans are to have the teacher take attendance, add grades to the file (with the gradebook connected to the grade reporting system), make comments concerning progress, prepare letters to parents, and prepare tests using teacher-made test items as well as some from the test item bank on the computer. Electronic mail and messaging will eliminate almost all intercom memoranda. Messages sent to and from the school office electronically provide needed information and allows precious time to be used for planning.

FTE periods come and go. Grade reporting periods come and go. The flow of the classroom is uninterrupted. All of the records are processed as needed by the school and the district office without rushed fill-in-the-form

and bubble-the-scan-sheets periods. In the school office, the principal carefully supervises the maintenance of the daily data update process. As the grades are taken, they are posted. As schedules are made, they are posted. As attendance is taken, it is posted. This occurs in the school computer and the district computer as well. When the district or state requires reports, it is transparent to the administrator and teachers, for they are compiled and sent without disturbing the schools.

Does this sound like a dream? It is not, because much of the groundwork has already been laid in districts throughout the state. Again, in Polk County, we are preparing by configuring the schools for classroom networks and by requiring all instructional personnel to take a three-hour credit course in computer literacy.

We have come a long way since the 1976 Accountability Act. We predict that during the next ten years we will grow just as much in both access to data and in our ability to use those data in planning and decision-making.

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